

IN THE CLAIMS:

The following is a complete listing of claims in this application.

Claims 1-18 (canceled).

19. (currently amended) An opalescent glass ceramic which is devoid of  $ZrO_2$  and  $TiO_2$ , and which comprises an  $Me(II)O$  component in an amount of less than 4% by weight, and an  $Me(IV)O_2$  component in an amount of 0.5 to 3% by weight, the glass ceramic consisting essentially of:

Component	% by weight
$SiO_2$	55 - 62
$Al_2O_3$	13 $\leq$ - 17
$B_2O_3$	0 - 2
$P_2O_5$	1.5 - 3
$Li_2O$	0 - 2
$Na_2O$	7 - 12
$K_2O$	8 - 12
$MgO$	0 - 2
$CaO$	1 - <4
$BaO$	0 - 2
$Tb_2O_3$	0 - 3
$Me(IV)O_2$	0.5 - 3

wherein said  $Me(IV)O_2$  consists essentially of 0-1% by weight  $CeO_2$  and 0-2.5% by weight  $SnO_2$ ,  $0 < CeO_2 \leq 1$  and  $0 < SnO_2 \leq 2.5$ , and

wherein the glass ceramic has a thermal expansion coefficient (TEC) in the range of  $9.0 - 13.5 \times 10^{-6}/K$ .

20. (previously presented) The opalescent glass ceramic according to claim 19, wherein  $Me(II)O$  is present in an amount of 2-3.5% by weight.

21. (previously presented) The opalescent glass ceramic according to claim 19, having a composition of:

Component	% by weight
SiO <sub>2</sub>	58 - 60
Al <sub>2</sub> O <sub>3</sub>	14 - 15
P <sub>2</sub> O <sub>5</sub>	2.3 - 2.6
Na <sub>2</sub> O	9.5-10.5
K <sub>2</sub> O	9 - 10
CaO	2.8 - 3
Tb <sub>2</sub> O <sub>3</sub>	0 - 2
CeO <sub>2</sub>	0.3-0.4
SnO <sub>2</sub>	1.3 - 1.6

22. (previously presented) The opalescent glass ceramic according to claim 19, which is a dental material or an additive for a dental material.

23. (previously presented) The opalescent glass ceramic according to claim 19, wherein the thermal expansion coefficient (TEC) is in the range of  $10.5 - 12.0 \times 10^{-6}/K$ .

24. (currently amended) A method for producing an opalescent glass ceramic which is devoid of ZrO<sub>2</sub> and TiO<sub>2</sub>, which has a thermal expansion coefficient (TEC) in the range of  $9.0 - 13.5 \times 10^{-6}/K$ , and which comprises an Me(II)O component in an amount of less than 4% by weight and an Me(IV)O<sub>2</sub> component in an amount of 0.5 to 3% by weight, comprising the steps of:

mixing together components consisting essentially of:

Component	% by weight
SiO <sub>2</sub>	55 - 62
Al <sub>2</sub> O <sub>3</sub>	13 <sub>&lt;</sub> - 17
B <sub>2</sub> O <sub>3</sub>	0 - 2
P <sub>2</sub> O <sub>5</sub>	1.5 - 3
Li <sub>2</sub> O	0 - 2
Na <sub>2</sub> O	7 - 12

K <sub>2</sub> O	8 - 12
MgO	0 - 2
CaO	1 - $\leq$ 4
BaO	0 - 2
Tb <sub>2</sub> O <sub>3</sub>	0 - 3
Me(IV)O <sub>2</sub>	0.5 - 3

wherein said Me(IV)O<sub>2</sub> consists essentially of 0-1% by weight CeO<sub>2</sub> and 0-2.5% by weight SnO<sub>2</sub>, 0 < CeO<sub>2</sub>  $\leq$  1 and 0 < SnO<sub>2</sub>  $\leq$  2.5,

- melting the mixture in a furnace;
- quenching the molten mass from the furnace in a water bath and drying to form a frit;
- grinding the frit in a mill;
- tempering the ground frit;
- drying the tempered frit, and filling the frit in a ball mill and grinding, and
- sifting the ground frit through a sieve.

25. (previously presented) The method according to claim 24, wherein the tempering of the frit comprises the steps of:

- stacking the ground frit on quartz-coated fire-clay plates,
- placing the fire-proof plates in a furnace heated to a temperature  $T$  with  $850^{\circ}\text{C} \leq T \leq 1000^{\circ}\text{C}$ , thereby fusing the ground frit,
- removing the plates from the furnace after a time  $t$  with  $30 \text{ min} \leq t \leq 60 \text{ min}$ , and
- quenching the fused frit in a water bath.

26. (previously presented) The method according to claim 24, wherein the components are mixed in a gyro mixer.

27. (previously presented) The method according to claim 24, wherein the mixture is melted in a gas-heated drip-feed

crucible furnace.

28. (previously presented) The method according to claim 24, wherein the filling and grinding step comprises filling the frit into a ball mill and grinding at about 10,000 revolutions per minute.

29. (previously presented) The method according to claim 24, wherein the ground frit is sifted through a sieve having a mesh size  $M$  in the range of  $80 \mu\text{m} \leq M \leq 120 \mu\text{m}$ .

30. (previously presented) The method according to claim 25, wherein the ground frit is fused at a temperature of 870 to 970° C.

31. (previously presented) The method according to claim 24, wherein the thermal expansion coefficient is set to  $9.0 - 13.5 \times 10^{-6}/\text{K}$  by adjusting the  $\text{K}_2\text{O}$  content.

32. (previously presented) The method according to claim 24, wherein the melting temperature of the opalescent glass ceramic is controlled to 870° C to 970° C.

33. (previously presented) The method according to claim 24, wherein % by weight  $\text{Al}_2\text{O}_3$  is 14-17.